

REMARKS

Claims 1, 8-13, 23, 25-35 and 37-46 are pending in the application. Of those, claims 1 and 33 have been amended. The support for the amendment can be found throughout the specification including, for example, paragraph [0024] on pages 5-6 of the specification. Accordingly, no new matter is introduced herein.

Rejection based on 35 U.S.C. § 112

The Examiner rejected claims 1, 8-13, 23, 25-35 and 37-46 as being indefinite. Specifically, the Examiner alleged that the term POLYSILICON-8 is a trademark or tradename and therefore does not comply with the requirements of 35 U.S.C. § 112, second paragraph. The Examiner then recommended that term be replaced with "a polydimethylsiloxane onto which are grafted, via a linking chain of thiopropylene type, mixed polymer units of the poly(meth)acrylic acid type and of the polyalkyl (meth)acrylate type," as disclosed in the specification.

Applicants disagree that the term "polysilicone-8" is a trademark. Polysilicone-8 is an INCI name, and therefore is a chemical name, rather than a trademark. In fact, there are issued U.S. patents with such chemical names in the claims (See U.S. Patent Nos. 6,623,694 and 6,689,313).

However, in order to expedite prosecution of this application, Applicants hereby adopt the Examiner's recommendation and amend the term "polysilicone-8" in the pending claims to "a polydimethylsiloxane onto which are grafted, via a linking chain of thiopropylene type, mixed polymer units of the poly(meth)acrylic acid type and of the polyalkyl (meth)acrylate type." Accordingly, Applicants respectfully request withdrawal of the rejection.

Rejections based on 35 U.S.C. § 103

There were two obviousness rejections in the Office Action:

- First, the Examiner rejected claims 1, 8-13, 23, 25-35, and 37-42 as being obvious over Dubief et al. (U.S. Patent 6,909,376) ("Dubief") in view of Nandagiri et al. (U.S. Patent 5,362,486) ("Nandagiri").
- The Examiner also rejected claims 1 and 43-46 as being obvious over Dubief in view of Nandagiri and further in view of Bara (U.S. Patent Application Publication 2002/0193513) ("Bara").

Obviousness Rejection of claims 1, 8-13, 23, 25-35, and 37-42 based on Dubief in view of Nandagiri

The Examiner admitted that Dubief does not teach polysilicone-9, but alleged that the other tensioning polymers recited in claim 1 are taught in the secondary reference, *Nandagiri*. Specifically, the Examiner stated that:

Nandagiri discloses composition comprising **polyurethane-acrylate** for bodifying hair (column 15, lines 13-62). Therefore taking the two references together, it would have been obvious to use the **polyurethane-acrylate tensioning interpenetrating polymer** of *Nandagiri* in the composition of *Dubief* and expect to have a composition for treating hair as it relates to body, feel, styling and distangling of the hair.

(Office Action dated December 28, 2009, at pg. 5) (emphasis added). Applicants respectfully traverse as the Examiner's characterization that *Nandagiri*'s polyurethane-acrylate is an interpenetrated polymer network is not supported by the teachings of this reference.

The present application defines the term "interpenetrated polymer network" as "a blend of **two interlaced polymers**, obtained by simultaneous polymerization and/or crosslinking of **two types of monomer**, the blend obtained having a single glass

transition temperature." (See page 4, paragraph [0016] of the specification (emphasis added.).)

The below-quoted example referred by the Examiner in the Office Action at page 5 makes clear that *Nandagiri* teaches the use of a single type of oligomer, urethane-acrylate oligomer, that is polymerized in-situ to form polyurethane-acrylate polymer, which is NOT an interpenetrated polymer network as recited in the pending claims:

EXPERIMENTAL

Preparation of In-situ Hydrophobic Polyurethane-Acrylate Hair Bodifying and Set Retention Polymer

Five grams of a urethane-acrylate oligomer is mixed with 6 grams of ethanol and 1 gram of octyl dimethyl p-aminobenzoic acid (UV light absorber) in a first composition and the mixture is shaken vigorously. In a second composition, 0.4 gram (78% active) benzoyl peroxide (ground powder) and 14.8 grams of ethanol were mixed as a polymerization initiator. The two compositions are combined as a mixed solution using 7.6 grams of the first composition and 2.4 grams of the second composition immediately prior to application to rolled hair tresses. The hair tresses are dipped into the mixed solution and then the tresses are heated at about 40° C. for about 45 minutes in an oven in a weight ratio of the composition to hair of 1:1. Some tresses are pretreated with a spray of 10.5 pH NH₄OH. The bulk volume of the hair (bodifying) is substantially increased with and without the pretreatment. After washing, the body of the hair remained substantially increased and remained soft.

(*Nandagiri*, col.15 ll.13-35)

In fact, one of ordinary skill in the art, reading such example, would readily recognize that such process would not produce an interpenetrated polymer network since it involves only a single type of monomer.

Because neither of the cited references teach the recited tensioning polymers, i.e., (1) polyurethane and polyacrylic polymers in the form of interpenetrated networks, and (2) a polydimethylsiloxane onto which are grafted, via a linking chain of thiopropylene type, mixed polymer units of the poly(meth)acrylic acid type and of the polyalkyl (meth)acrylate type, Applicants respectfully submit that the rejection of claims 1, 8-13, 23, 25-35, and 37-42 based on *Dubief* in view of

Nandagiri is not sustainable. Therefore, withdrawal of the rejection is respectfully requested.

Obviousness Rejection of claims 1 and 43-46 based on *Dubief* in view of *Nandagiri* and further in view of *Bara*

The Examiner alleged that *Dubief* teaches a composition containing grafted silicone to treat hair and keratinous substance, and that *Nandagiri* also teaches a composition containing polyurethane acrylate for bodifying hair. However, the Examiner admitted that "the combined teaching of *Dubief* and *Nandagiri* does not teach the limitations of claim 43." However, the Examiner then relied on another secondary reference, *Bara*, and alledged that "compositions containing polyacrylic acid or polyurethane polymers are known to provide tautness, slipperiness to the skins which does not dry out the skin." (Office Action dated December 28, 2009, at pg. 6). The Examiner then determined that one having ordinary skill in the art at the time the invention was made would reasonably expect that the application of the composition of *Dubief* and *Nandagiri* would effectively provide the anticipated tautness to the skin. Applicants respectfully traverse.

To restate, neither *Dubief* nor *Nandagiri* teaches the recited tensioning polymers, i.e., (1) polyurethane and polyacrylic polymers in the form of interpenetrated networks, and (2) a polydimethylsiloxane onto which are grafted, via a linking chain of thiopropylene type, mixed polymer units of the poly(meth)acrylic acid type and of the polyalkyl (meth)acrylate type. *Bara* also fails to teach the recited tensioning polymers, and therefore, does not remedy the deficiencies of the collective teaching of *Dubief* and *Nandagiri*.

Accordingly, Applicants respectfully submit that the rejection of claims 1, and 43-46 based on *Dubief* in view of

Nandagiri and further in view of *Bara* is not sustainable, and request withdrawal of the rejection.

Rejection based on Provisional Obviousness Double Patenting

The Examiner rejected claims 1, 6-13[sic 8-13], 23, 25-35 and 37-46 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over (1) claims 1-35 of copending Application No. 10/982,925; and (2) claims 60-116 of copending Application No. 10/591,583 and (3) claims 1-59 of copending Application No. 10/573,579.

It is respectfully submitted that such rejection be withdrawn since the present application is an "earlier filed" application with respect to all of the cited co-pending applications. As stated in the M.P.E.P.:

If a provisional nonstatutory obviousness-type double patenting rejection is the only rejection remaining in the earlier filed of the two pending applications . . . the Examiner should withdraw that rejection and permit the earlier filed application to issue as a patent without a terminal disclaimer.

M.P.E.P. §804 I.B.1.

Applicants respectfully request withdrawal of the rejection.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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